Complete Summary

GUIDELINE TITLE

American Gastroenterological Association Institute medical position statement on the management of gastric subepithelial masses.

BIBLIOGRAPHIC SOURCE(S)

Hwang JH, Kimmey MB. American Gastroenterological Association Institute medical position statement on the management of gastric subepithelial masses. Gastroenterology 2006 Jun;130(7):2215-6. [109 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

According to the guideline developer, the Clinical Practice Committee meets three times a year to review all American Gastroenterological Association Institute (AGAI) guidelines. This review includes new literature searches of electronic databases followed by expert committee review of new evidence that has emerged since the original publication date.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Gastric subepithelial masses

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management

CLINICAL SPECIALTY

Anesthesiology
Gastroenterology
Internal Medicine
Oncology
Surgery

INTENDED USERS

Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To provide recommendations concerning the diagnosis and management of gastric subepithelial masses

TARGET POPULATION

Adults with gastric subepithelial masses

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis

1. Endoscopy
2. Endosonography
3. Cross-sectional imaging (computed tomography/magnetic resonance imaging)
4. Tissue diagnosis
    - Endoscopic ultrasonography (EUS)-guided fine-needle aspiration (FNA)
    - EUS-guided core needle biopsy
    - Stacked forceps biopsy
    - Endoscopic submucosal resection and dissection
5. Differential diagnosis of lesions based on EUS features

Management

1. Surgical resection
2. Endoscopic resection
3. Surveillance (transabdominal ultrasonography; EUS)
4. Ethanol ablation (considered but not recommended)

MAJOR OUTCOMES CONSIDERED

- Sensitivity, specificity, and accuracy of diagnostic techniques

- Complications of endoscopic and surgical procedures
- Recurrence rate

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

A literature review was conducted to identify all English-language articles relating to gastric subepithelial masses published between 1980 and 2005. A search of MEDLINE and PubMed was performed using the following key words: subepithelial tumor, subepithelial mass, submucosal tumor, or submucosal mass. The following terms were also searched to identify additional relevant articles: gastrointestinal stromal tumor, carcinoid, pancreatic rest, glomus tumor, inclusion cyst, duplication cyst, leiomyoma, leiomyosarcoma, lymphoma, lipoma, inflammatory fibroid polyp, and extraluminal compression. The reference lists of the articles identified in this manner were then manually searched to identify any additional references. References published only in abstract form were excluded. The present review concerns gastric subepithelial masses, and therefore articles concerned solely with subepithelial masses in other parts of the gastrointestinal tract were also excluded.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The recommendations are based upon the interpretation and assimilation of scientifically valid research, derived from a comprehensive review of published literature. Ideally, the intent is to provide evidence based upon prospective, randomized placebo-controlled trials; however, when this is not possible the use of experts' consensus may occur.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The document was approved by the American Gastroenterological Association Institute Clinical Practice and Economics Committee on January 19, 2006, and by the American Gastroenterological Association Institute Governing Board on April 20, 2006.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The following recommendations on the management of gastric subepithelial masses were made by the American Gastroenterological Association Institute:

Masses arising outside the gastric wall or within the wall but beneath the gastric surface epithelium are commonly found during upper gastrointestinal endoscopy, although their precise incidence is unknown. Standard forceps biopsy is unlikely to provide a tissue diagnosis, leading to diagnostic uncertainty for the physician and the patient. The differential diagnosis of these masses is broad and ranges from clinically insignificant to malignant conditions, underlining the importance of making an accurate diagnosis.

Endoscopy alone is not reliable for detecting the etiology of a subepithelial gastric mass. Cross-sectional imaging techniques such as transabdominal ultrasonography, computed tomography, and magnetic resonance imaging are adequate for detecting the presence of normal or abnormal structures outside the gastric wall but do not reliably distinguish between the various causes of masses

arising within the gastric wall. Furthermore, when only normal structures are seen on cross-sectional imaging, it is difficult to know if the subepithelial "mass" seen on endoscopy is from external compression by a normal structure or an intramural lesion that was not seen on cross-sectional imaging. In this situation, endoscopic ultrasonography (EUS) should be performed to confirm that the subepithelial "mass" seen on endoscopy is indeed due to external compression by a normal structure and not from an intramural lesion that was not identified on cross-sectional imaging.

EUS is currently the most accurate imaging test for detecting the component of the gastric wall from which the mass arises and the echogenicity of the mass, factors that can narrow the differential diagnosis. EUS imaging alone is not sufficient to provide an accurate diagnosis of hypoechoic intramural masses, however.

Hypoechoic intramural masses are the most clinically important lesions within the gastric wall because of their malignant potential. Gastrointestinal stromal tumors, carcinoid tumors, lymphomas, and metastases from a distant primary malignancy can have significant implications for the patient and are the main reason to pursue a tissue diagnosis of this type of mass whenever possible. Submucosal masses may be amenable to endoscopic snare resection, whereas masses arising from the muscularis propria can be sampled with EUS-guided fine-needle aspiration or core biopsy. Use of immunocytochemistry is helpful in distinguishing between the potential causes of hypoechoic intramural masses. Unfortunately, the true malignant potential for individual gastrointestinal stromal tumors cannot be accurately determined using current imaging and noninvasive sampling methods.

Patients with symptoms that can be attributed to the mass should undergo endoscopic or surgical resection of the mass. Current evidence does not allow making a firm recommendation on the optimal management of the patient with an incidentally detected, asymptomatic gastric subepithelial mass. Options include performing no further testing or monitoring, following the mass with periodic endoscopic or EUS surveillance, and endoscopic or surgical resection of the mass (see table below). These management options should be discussed with the patient and whenever possible guided by EUS imaging and tissue sampling information, because the clinical significance of the mass is highly variable

Summary of The Recommendations for the Management of Asymptomatic Gastric Subepithelial Masses

No further investigation or follow-up	Follow with periodic endoscopy and/or endoscopic ultrasonography (EUS) or resection	Resection
• Normal extramural organ • Lipoma • Duplication cyst • Pancreatic rest • Inflammatory fibroid polyp	• Gastrointestinal stromal tumor <3 cm in diameter • Glomus tumor	• Carcinoid in absence of hypergastrinemia • Gastrointestinal stromal tumor ≤3 cm diameter

No further investigation or follow-up	Follow with periodic endoscopy and/or endoscopic ultrasonography (EUS) or resection	Resection
• Neural origin tumors (e.g., Schwannoma)		

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

The recommendations are based upon the interpretation and assimilation of scientifically valid research, derived from a comprehensive review of published literature. Ideally, the intent is to provide evidence based upon prospective, randomized placebo-controlled trials; however, when this is not possible the use of experts' consensus may occur.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Improvement in diagnostic accuracy
- Streamlining of the differential diagnoses
- Effective management

POTENTIAL HARMS

- Perforation, infection, or hemorrhage with endoscopic ultrasonography (EUS)-guided fine needle aspiration (FNA)
- Bleeding with stacked forceps biopsy
- Perforation or bleeding with endoscopic submucosal resection (ESMR)
- Morbidity and mortality associated with surgical resection
- Bleeding and perforation with endoscopic resection

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

These recommendations should not be construed as a standard of care. The AGA Institute stresses that the final decision regarding the care of the patient should

be made by the physician with a focus on all aspects of the patient's current medical situation.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Hwang JH, Kimmey MB. American Gastroenterological Association Institute medical position statement on the management of gastric subepithelial masses. Gastroenterology 2006 Jun;130(7):2215-6. [109 references] PubMed

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Jun

GUIDELINE DEVELOPER(S)

American Gastroenterological Association Institute - Medical Specialty Society

SOURCE(S) OF FUNDING

American Gastroenterological Association Institute

GUIDELINE COMMITTEE

American Gastroenterological Association Institute Clinical Practice Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Authors: Joo Ha Hwang; Michael B. Kimmey

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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GUIDELINE AVAILABILITY

Electronic copies: Available from the American Gastroenterological Association Institute (AGAI) *Gastroenterology* journal Web site.

Print copies: Available from the American Gastroenterological Association Institute, 4930 Del Ray Avenue, Bethesda, MD 20814.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- American Gastroenterological Association Institute technical review on the management of gastric subepithelial masses. Gastroenterology 2006 Jun;130(7);2217-2228.

Electronic copies: Available from the American Gastroenterological Association Institute (AGAI) *Gastroenterology* journal Web site.

Print copies: Available from American Gastroenterological Association Institute, 4930 Del Ray Avenue, Bethesda, MD 20814.

PATIENT RESOURCES

None available

NGC STATUS

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